CLAIMS

1. Process for the organic synthesis of oligosaccharides constituting or corresponding to fragments of acid mucopolysaccharides characterised in that two compounds are reacted :

- constituted or terminated respectively by A units of glucosamine structure, in particular D- glucosamine, or galactosamine, in particular D-galactosamine and U units of glucuronic structure, in particular D-glucuronic or iduronic acid, in particular L-iduronic acid ;

- one of the units A or U being an alcohol in which the -OH group of the alcohol function occupies any one of the positions 3, 4 or 6 in the case of a unit A and 2, 3 or 4 in the case of a unit U, the other unit possessing an activated anomeric carbon, that is to say including a reactive group capable of establishing with the -OH group of the alcohol the desired -O- glycosylation linkage, in the desired stereochemistry, to form a -A-U or -U-A sequence ;

- the reactive group A or U being compatible with the protective groups and/or precursors and/or functional groups present on the units ;

- all the positions of A and U excepted those of which the anomeric carbon is activated bearing -OH, amino or carboxyl groups, or precursors of such groups, the groups themselves when they are present being blocked by one or advantageously several types of protective groups, these protective groups being compatible with one another and with the above precursors, these protective groups and

precursors being inert with respect to the glycosylation reaction and with the reactive groups, permitting the positioning, in the course of subsequent operations, of given substituents at the various positions and this, as necessary, sequentially, the conditions of operation to cause the starting substances to react being selected so as not to alter the structure of the unit of these substances and the nature of the various substituents present, providing that the establishment of the inter-glycosidic linkage does not lead to the obtaining of a disaccharide with a [2-N-sulfate or (2-N-acetyl)-6-O-sulfate-D-glucosamine]-[methyl-D-glucuronic acid] structure.

2. A process according to Claim 1, wherein the A and U units of the sequence formed include temporary protective group, i.e. group capable of selectively blocking a position of the A or U unit intended to take part in a novel glycosylation reaction.

3. A process according to Claim 1, wherein an alcohol is reacted with a reactive derivative such as a halide, an imidate or an orthoester.

4. Application of the process according to Claim 1 for preparing the pentasaccharide having the structure DEFGH.